## Product data sheet Characteristics

## BSH1403P02F2P

AC servo motor BSH - 22.2 Nm - 4000 rpm - untapped shaft - with brake - IP50

Main	
Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	22.2 N.m for LXM15MD40N4 at 230 V 3 phases 22.2 N.m for LXM15MD40N4 at 400 V 3 phases 22.2 N.m for LXM15MD40N4 at 480 V 3 phases 25.4 N.m for LXM05AD57N4 at 380480 V 3 phases 25.4 N.m for LXM05BD57N4 at 380480 V 3 phases 25.4 N.m for LXM05CD57N4 at 380480 V 3 phases 25.4 N.m for LXM05CD57N4 at 380480 V 3 phases 27.8 N.m for LXM15MD56N4 at 230 V 3 phases 27.8 N.m for LXM15MD56N4 at 480 V 3 phases 27.8 N.m for LXM15MD56N4 at 480 V 3 phases
Peak stall torque	41.6 N.m for LXM15MD40N4 at 230 V 3 phases 41.6 N.m for LXM15MD40N4 at 400 V 3 phases 41.6 N.m for LXM15MD40N4 at 480 V 3 phases 57.3 N.m for LXM15MD56N4 at 230 V 3 phases 57.3 N.m for LXM15MD56N4 at 400 V 3 phases 57.3 N.m for LXM15MD56N4 at 480 V 3 phases 57.32 N.m for LXM05AD57N4 at 380480 V 3 phases 57.32 N.m for LXM05BD57N4 at 380480 V 3 phases 57.32 N.m for LXM05BD57N4 at 380480 V 3 phases
Nominal output power	3000 W for LXM15MD40N4 at 230 V 3 phases 3000 W for LXM15MD56N4 at 230 V 3 phases 3400 W for LXM15MD40N4 at 480 V 3 phases 3400 W for LXM15MD56N4 at 480 V 3 phases 3900 W for LXM15MD40N4 at 400 V 3 phases 3900 W for LXM15MD56N4 at 400 V 3 phases 3900 W for LXM05AD57N4 at 380480 V 3 phases 3900 W for LXM05BD57N4 at 380480 V 3 phases 3900 W for LXM05CD57N4 at 380480 V 3 phases
Nominal speed  Maximum mechanical	1500 rpm for LXM15MD40N4 at 230 V 3 phases 1500 rpm for LXM15MD56N4 at 230 V 3 phases 3000 rpm for LXM15MD40N4 at 400 V 3 phases 3000 rpm for LXM15MD56N4 at 400 V 3 phases 3000 rpm for LXM05AD57N4 at 380480 V 3 phases 3000 rpm for LXM05BD57N4 at 380480 V 3 phases 3000 rpm for LXM05CD57N4 at 380480 V 3 phases 4000 rpm for LXM15MD40N4 at 480 V 3 phases 4000 rpm for LXM15MD56N4 at 480 V 3 phases
speed	
Product compatibility	LXM05AD57N4 at 380480 V 3 phases LXM05BD57N4 at 380480 V 3 phases LXM05CD57N4 at 380480 V 3 phases LXM15MD40N4 at 230 V 3 phases LXM15MD40N4 at 400 V 3 phases LXM15MD40N4 at 480 V 3 phases LXM15MD56N4 at 230 V 3 phases LXM15MD56N4 at 400 V 3 phases LXM15MD56N4 at 480 V 3 phases
Shaft end	Untapped
IP degree of protection	IP50
Encoder type	Absolute multiturn SinCos Hiperface

Encoder feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Number of poles	10

## Complementary

Range compatibility	Lexium 05
	Lexium 15
Nominal torque	8.1 N.m for LXM15MD40N4 at 480 V 3 phases
	8.1 N.m for LXM15MD56N4 at 480 V 3 phases
	12.4 N.m for LXM15MD40N4 at 400 V 3 phases
	12.4 N.m for LXM15MD56N4 at 400 V 3 phases
	12.43 N.m for LXM05AD57N4 at 380480 V 3 phases
	12.43 N.m for LXM05BD57N4 at 380480 V 3 phases
	12.43 N.m for LXM05CD57N4 at 380480 V 3 phases
	18.8 N.m for LXM15MD40N4 at 230 V 3 phases
	18.8 N.m for LXM15MD56N4 at 230 V 3 phases
Maximum current Irms	61 A for LXM15MD40N4
	61 A for LXM15MD56N4
	61 A for LXM05AD57N4
	61 A for LXM05BD57N4
	61 A for LXM05CD57N4
Switching frequency	4 kHz for LEX05
Torque constant	1.59 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	105 V rms/krpm at 120 °C
Rotor inertia	23.44 kg.cm² with brake
Stator resistance	0.4 Ohm at 20 °C
Stator inductance	5.1 mH at 20 °C
	5.32 mH at 20 °C
Stator electrical time constant	12.75 ms at 20 °C
	13.3 ms at 20 °C
Maximum radial force Fr	1780 N at 3000 rpm
	2030 N at 2000 rpm
	2560 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	21.2 kg

